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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,685	07/20/2006	Yasuaki Norimatsu	520-46387X00	8030
20457 7590 09/10/2010 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER SCHNEIDER, CRAIG M				
ART UNIT 3753		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,685

Applicant(s)

NORIMATSU ET AL.

Examiner

CRAIG M. SCHNEIDER

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 7/20/06, 11/1/07, and 4/23/08

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 2, lines 1-6 the applicant is referring to "Patent Literature 1". It is unclear as to what the applicant is referring to. The examiner suggests that either the applicant further clarifies what is meant by supplying this reference or to delete this from the specification.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-4, 6, 7, 9, and 12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 7,766,032. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims language in the pending application are broader than the claims of the issued Patent. That is, the more specific patented claims "anticipate" the broader application claims. See *in re Goodman* 29 USPQ2d 2010.

4. Claim 5 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,766,032 in view of *Shulsinger* (4,108,219).

Patent 7,766,032 fails to claim wherein the container body is formed in the shape of a cylinder; the liquid fuel chamber is formed in the shape of a cylinder or in a tubular shape having an oblong section. *Shulsinger* discloses a container body formed in the

shape of a cylinder and the liquid fuel chamber formed in the shape of a cylinder as seen in Figure 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a cylindrical container body with a cylindrical liquid fuel chamber as disclosed by Shulsinger for the structure of the container of the container of Patent 7,766,032, since the cylindrical shape would be an easy shape to produce and conforms to a users hand.

5. Claim 8 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,766,032 in view of Lippman et al. (5,423,454).

Patent 7,766,032 fails to claim that the maximum pressure of the compressed gas is 0.3MPaG or lower. Lippman et al. disclose that the common pressure in an aerosol application to be between 10 and 40 psi (col. 5, lines 54-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a pressure below 40 psi (0.3 MPaG) as disclosed by Lippman et al. for the aerosol dispenser of Patent 7,766,032, since this is the common operating pressure for aerosol dispenser as taught by Lippman et al.

6. Claims 10 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 8 of U.S. Patent No. 7,766,032. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims language in the pending application are

broader than the claims of the issued Patent. That is, the more specific patented claims "anticipate" the broader application claims. See *in re Goodman* 29 USPQ2d 2010.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shulsinger (4,108,219).

Shulsinger discloses a fuel container comprising a liquid fuel chamber (31) having a space for the storage of liquid fuel ; a valve (17) disposed in an outlet of the liquid fuel chamber to discharge the liquid fuel from the space or stop the discharge (col. 3, lines 54-61); a partition wall member (23) movable through the space toward the valve (col. 4, lines 1-3); and a compressed gas chamber (29) communicating with the space and storing compressed gas (col. 4, lines 12-26), the compressed gas imparting a back pressure to the partition wall member so that the partition wall member moves through the space toward the valve, the liquid fuel chamber and the compressed gas chamber being integral with each other as seen in Figure 1. Note: For a fuel cell is intended use and is being treated as such. Since the device is capable of being utilized for a fuel cell then the intended use limitation is met.

Regarding claim 2, wherein the valve is constructed so as to be connectable to a fuel supply port of the fuel cell. The limitation is being treated as intended use and the device as disclosed is capable of being connected to a fuel supply port of the fuel cell.

Regarding claim 4, wherein the fuel container is constructed so that it can be loaded into a device incorporating a fuel cell. The limitation is being treated as intended use and the device as disclosed is capable of being loaded into a device incorporating a fuel cell.

Regarding claim 5, wherein the container body is formed in the shape of a cylinder, the liquid fuel chamber is formed in the shape of a cylinder as seen in Figure 1.

Regarding claim 6, wherein the compressed gas chamber in the container body is adjacent and juxtaposed to the liquid fuel chamber as seen in Figure 1.

Regarding claim 7, wherein the compressed gas chamber in the container body is adjacent to the liquid fuel chamber as seen in Figure 1.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger (4,108,219) in view of Lippman et al. (5,423,454).

Shulsinger discloses all the features of the claimed invention except that the maximum pressure of the compressed gas is 0.3 MPaG (40psi) or lower. Lippman et al.

disclose that the common pressure in an aerosol application to be between 10 and 40 psi (col. 5, lines 54-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a pressure below 40 psi (0.3 MPaG) as disclosed by Lippman et al. for the aerosol dispenser of Shulsinger, since this is the common operating pressure for aerosol dispenser as taught by Lippman et al.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of Gupta (2003/0019888).

Shulsinger discloses all the features of the claimed invention except that the compressed gas is an oxygen-free gas. Gupta discloses that the compressed gas can be one of isobutene, n-butane, propane, dimethyloxide, fluorocarbons, compressed air, nitrogen, and carbon dioxide (page, 7, para. 98).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize one of the oxygen-free gases as disclosed by Gupta in place of the compressed gas of Shulsinger, since the use of the various types of oxygen-free gases are known to be utilized as propellants and therefore are functional equivalents.

12. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of JP60-86744 (supplied by applicant).

Shulsinger discloses all the features of the claimed invention except that at least a part of the liquid fuel chamber is formed of a light transmitting material wherein the container body has scales indicating the position of the partition wall member. JP60-

86744 discloses a measuring window of a direct transparent view type, wherein the window has a pair of scales (translation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a scale as disclosed by JP60-86744 with the aerosol dispenser of Shulsinger, in order to be able to see the amount of fuel left in the container.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shulsinger in view of Yonetsu et al.(2003/0082421).

Shulsinger discloses all the features of the claimed invention except that the liquid fuel is a mixture of methanol and water. Yonetsu et al. disclose a fuel container containing a mixture of methanol and water (page 1, para. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a mixture of methanol and water as the fuel as disclosed by Yonetsu et al. for the fuel of Shulsinger, in order to be capable of utilizing the device to supply fuel to a fuel cell.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Towns (3,381,863); Schumacker et al. (4,355,736); Saulle (4,877,157 and 4,979,652) discloses pressurized aerosol dispensers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG M. SCHNEIDER whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on (571) 272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Craig M Schneider/
Examiner, Art Unit 3753
September 9, 2010